OIPE JC12
SEP 13 2004
PATENT & TRADEMARK OFFICE

-6660 TCTAGAATAT AGAAGATAAG TTTGCGTACA ATTCAGTCCT TTGAAGACCT

GATAAGCTTT AAGAAGGAAG ATGGGTTACA CATTGGGAAA TGGTTGCAAT

CTGCACATGG CAGAGGCAAG AGATGCAAAT CACATTTCTT ACATACTCCA

-6510 TACAAATCTT ACAAGACTGT TTTTCTTTCT CATTTAAAAT AAGAAGACCT

GCCAGTCTTC CCCTTATTAC TAATTACAGT CACTCTGTAT CTTTGTTGAC

ATTGGATAGT TTTACATACT TCAACAGGCT GGTGTCATTA AAGTTGTGGT

GGGTGGGCAC CAGAGACACG TGATTCAGAG TGGGAGGAGA TGCAGGAGAA

ACGAGGCACA GCAGAAGCAG AAGCGAGGAA AAACACTCTC AACGTTACTA

ACACATCGAG AGGTTCCGCA CACTAGCAAT ACGGGCTGAA TCTGACCTAA

TCTCTGCTGT TGAAAATTTT GCCTAGCCGC ACACTAGCAA TACGGGCTGA

ATCTGACCTA ATCTCTGCTG TTGAAAATTT TGCCTAGCCT GTCACACAAG

TGCTGAGCAT ACAGAAAAAG GAGAGTAATT CTCTGGTTCT TTGACTAACC

AAATAGTCTA TATCAAATTG CCTAAGATAA TGTATACATT TAGTACATGA

-6010 CTGGTTATAC CTATTCTATA TGACTATTAT TTAAATGTGA ATTTACAAGT

GAGCATATGA AGTCCATTTT ACATGGCTAG TACATATAAC TTTTAAAAAG

TTGGACATAG TTATATTTTT CCATTTATTT ATTTACTTTA TATCCTGATC

ACAGACCCCC CCCTCCTCTG GATTAACTCT CTCCACTGCT TCTTACCCCT

CCCCATCTCT CCTTCACCTC TGAGAAGGGG GGATACCTCC TGTCTTATCT

GGTTTCAGTG GGAGAAGGAT GTATCCTAAC ACATATAATT TTTAATATCC

TGAGTTTTTC TTTCATACAC CTTACTTATT CTATTCATTT TTCAGGAAGG

CATGTTTAAT GTTTTTTTTT TAATTTTATG TGTACGAGTG TTTTGCCTAC

ACAGTCATAG TGCATCGCAT ACATTTTTGC TGCCCGTAGA GATCAGAAGG

GAGCATTGGG TTCCCTAGGA CTGGAGGCAT GAACCACCTT GTGGGTGCAG

AGAACTGAGC CTGGGTCATC TCAAAGCATC AGGTTCTTCT TGAGTCATCT

CACTTGCCAC TTCTCCCATT TACTGATTTT ATCTGTGTGC AGACATTCAT

GGCCCAGTCC ACAGGTGGAA GTCAGGGACA ACCTATAGGA GTCAGTCCTC

TCCTTCTACC GTGTGAGTCC CTGGCCTCAA ACTCAGGTTG TCGGGCTTCA

FIG. 1-1

BEST AVAILABLE COPY

TAGCAAGAGC TTCTATTTGT TGAGCCATCT TGCTAGCCCC ACCCCATACT

ATCTTTATAA TATCTGTTTA ATTAAGACAT TCATAATGAA TTTTATTAAC

ATTCATCGTT ATCCCCTTTA CCAATTTTAC TATGTATTAA TTGCCACCCC

TTTAAATTTA ATTACTTCCT TGGCTGGGTT TTACAGGAGA GTTCCAGGAA

GCTAGATGGA GAGATGGCTC AACAGTTTAG AGCAACGGCT GTTCTTGCAG

AGGACCTAGG TTCAAGTCCT GGCACTCAGA GGTGGCTCAC AATCATCTGT

-5010 GACTTCAGTT CCAGGGGATC TGAAGAATTC TTCTGGGCTC CATGGGCATC

AACTACACAC TTGGTTCATA GACATACATG CCAGCAAATG ATTGATCCAT

ACATATGAAA TAAACCATAA ACAGAAAAAA AAAAGGAAGG TGAGGGAAGG

AAAAAAAGTT TAAAAAAAGG AAAGGAAGGA AGGAAGGGAN NNNNNNNNNN

NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNTCTCTC CATACTGAAA

GATGTCCACA ATGACTAAGG GAATTTTTTT TAAAAGACAA GCACAACGTT

TTCTAGGGAT CAAACTCTAT TTGTGAGGAA GACTGGTGGT TTGAAGATTA

CATAGCAGAG TTACATCTAA CATGAGCGTG TTTCCCCTGG ATGGAAGGAG

TCTGATAACT TGTCTTTCTT TCTTAGTTAG CATCTCAGAG TCCCCCGCCT

CCCTTAACAT CCTTTTTGCA CACCATCTTT TTAGGAAAAT GGATCATTTA

TGGGGATGTA GTGATTTGTA CAAGAATGTC CCCTGTGGGC TCAGATATTT

GAATACTTAG TTCCCAGTTG GGGGAGCTTT TGTAGGGAGG TTGGGAGGCA

CAGCCTGGCA GGAGGAAGCA TGCTAGCAGC TTTGAGACTA TAAACCCTCA

TCTACTACCT TGTTCTCTTT CTGCATTGTG CTGTGTCTGA CACTGTGAGA

TTCCTGCTCC CGATGCCATG CCTGCCCGCC ATGATAGACT CCTAGCCCTC

TGGAAAGGTA ACCTCAGTGA ACTCTCTTCT ATAAGTTTCT TTGCTCCTGG

HindIII (-4200)

TGTTTTATCA CTGAAACGGA AAAGCTTGCA GGGAGGTAGG AGGCAGCCTG

FIG. 1-2

BstEII (-4100)

TGGCGTTGAT TCAATGCACC TGGCCTTATC CTCGGATGAG ATCGGTCACC

AGTCAAAAAC TGTGAGCTTG AAGGTCTTGG GTGCTTAACA TCTATTTTTA

CAAATCTTAT TTAGCAACTT AGAACTGTGA AATATTGGAA AGCTACTTAA

-4010 ACCTTCTAAA CTCCCTCCTC CACACTATGA GAATGTTACA TTTTCTATTC

AGTTATTTTT GAGCAGTAAA CAGATGAATC AAGGAATATG CCCATCACAT

CAAGAGTGCT CCTAAATGGA CTTGCTTGTT ATTCATTTAC AGTGTGGCCC

CTTGACTTTC ATCGGCACTC CTAGCAGAAA ACAAAATCCG CCAGATGGAG

CTGGAGAGAT GGCTCAGCTG TTAAGAATAC TTATCCCTAC ACAGGCCCTG

GAGCCAGTTC CCAGCACCCA CACGGTGGCT CACAACCATC TGTAACTCCA

GTTCTAGGAG ACCCGACTCC CTCTTCTGTC TGAAAACACC AGGCACGCGT

GCGGTCTACA TACAAACATG AAAGCAAAAT ACACACATTA CATAAATAAA

TCTTAAAAAA TGATTCGGGG TGGGGGAAGG AAAAAAAAGG ATGTTAGAAA

ATCGATGTAA CTGTTTTTTC CTTTTGCACA GATCTAAGTT AGGGAAGGAG

AACATTCTCT TACCATCGAA AATAATTGTT TTCATTGCCC CCAAGTCTGC

TAATAGAGCT TGCTACCTTC ATGGCTGTCG TAAGGATGAG GCAAAGATGG

ACTTCAGCTT TCAGACTGTG TCTGCTCAAA TGTTGGCTAC TCCTGTTTTC

TGACCCCCTT CTCTGGTGCA ATGTGGACTT TCAATTAATT TCCCTGCATC

TTTTACATAT TTGATTTAAA AAATATTTTA TTTTATGTAA TTGTATGTAT

ATGCATGTCA ATAAGCATAT GTGTGTGTGT TTCCATGGAA ACCAAGGCAA

CAGATTTTCC AGAGCTGTAG AAATGGGCTG TGAGACGCCC ACTGTGGGTG

TTCGGAACCA AACTCGGGTC CTGTGGAAAG ACAGCGAGCA CCCATAATGC

AGAGGTATCT CTCAGATTTT ACTTTAAAAT TTCAATTTTC TTTTTTTTTT

TTAAAGTTCC AAGTAACTAT AGGAAAGTAC ATGGGTATAT AGATCCCCAG

-3010 TACCAAGATT CTTCCTTTGC AGGTAGCACA ACTTGGTTTG TTTCACATAA

AGAATGGAAA GTCATTAAAA CACTCATCAC ACTGTAAAGT AGAATTGAAC

TCTGACAGAA CAAGCGAAGT GAGTCTGACT TCCAGGTAAC TGAGCCTTCT

FIG. 1-3

TTTCCTCCTA AAGACACAAG CCATACACAG AGTAAAATAA ACTTGGGCAT

GGTGAGAAGG AAACAACGCA GGAGGGCTAG CCAAGTCTGA GAGTCGTGAG

TGTGCTCGGT TTATAAACGG AGCCCACCTT GCCAGCGAGG TAGTCACATG

CTCTGCTAAA CAGAAACTTA AGAAAACACT TACACGAAGC AAACATGGGG

AAGTGCCATG CAAGCATGTG ACTGACTGGT GGCAATGACC GAAACCACAG

CAGCCACTAG AAAAGGAAGG GTAGTGCGCC ACACTGTAGT TGTGAAAATG

AACTTATTCA TTTATTTTGA AAAACGTGTA AGAAGCAAAG ATGTCTTCTT

TCCCACCTAC CTTTGCGGCA GGCGAGCACT TCCTGGAATT TATAAAGTGC

GATCTTTCTG GGGACTTCTC ATAACATTTC CTACTGCTCA TCTATGTCTG

TGTCAAATAG AGAATGCTCT TGAACAAGTG TGTGTGTGTG TGTGTGTGCG

CGCGCACGCG CACTCACTCC TGCTCTGTTG AGGTCCAGTT TTGATGGTCC

CGCCAGAGGT ATATTTGAGT ATCATTTCTC AAGAGCTTCA GCTGGGAGAC

ACTGCCTCTT ACTGGCCTGA AGGTCACTAG CTGATTCATC TCCGTTTGGG

CTGGCGCGCC TTGGGGATCC TCCTATCTCT CCTTCCCCAG TGCTGGGATA

ACAAGGTTGG CACCACATGA GCCTTTTAAA ATGTGAGTTT GGAAGCTCAA

ACGCAGGTTT TCATGCTTGC ACTGAAACTT CACAAGCTGA ACCGTCTCCC

TCTCCTTCCC TCTCTTTTTT CCTTTTCTTC TTCCTTTTTA AAACACATCT

-2010 TGTCTTTAAA AAAAAAAAAA GGCCCAAAAC AAGTGTAAAG TATTTCCCTA

TGTGTGTGGA GGGAGGGAGT ATAGGAGGCT GATTTCACTG AGATCCTGTT

AAATTTGGGT GCCATAGCCA ATCAAAGACG CATCGTTTCC TCTAAGAATT

CTAAATGGGG CGATTACCAC GGGCCTGCAG GTTCTGGTTT GTATTAGAGG

AGACACTGTC TTCTTAAGTA AAACATAGAA GGGGAAGTGT CCAGAATTGT

AAATAAGGCT TCGAGAGAAG CCTTGTCTGG CCACCGGGAT GGAGAAGACC

TACCTTCGCC TATCCAGGAT CCATCGTCCC TCCCTCTACC CAGATCTGAC

AGCCCTCCTT GGCTCTTTTG CTGAGGTTTG TTTGAGTTTG TTTTACTCTC

TGCAAGAGAA GTTTCCTTAA ACATTCTACC CTGTTCACAA GTAAATACAC

CTCTTAGCTA AGAGGCCACA CACCCAGGGG GAACACCGAT AAAAAGAACA

FIG. 1-4

AGCCAGAACC TTCAGAACGC TGTCGATAGG TACACCAAGC AGCCTTCATA

CGGAGTTTTC ATTCGTGAGG AGCTGAATAT ACAACAAAGC TAAATGTGAG

CAGACCAGGC ATGCCTCTGC TAAATGAGGA TGCCCACACC AAACATGCCC

AAGATCTTCA AGTATTAATTT TATTATATAG ATTCGCTATG TGTTGACATG

TTTTTATAGT GAACCTGGAT TTTACAAACC CTCCTGGTTT GCCACCTGCT

TCTGGCACCA TACTTGAGGC TTAGGCACGT GATAAAGGAG CATGCCTGTT

TCCCCCCTTA TTTTTTTTAA AGAAAAGCAC CATGTTACAT CATTAATCAT

GCATATCAGT GTAGTTTAGA TCCGATGTAG AGACAATAAT CTTATCTCTT

TGTCTGGCTG AAAGACTGTC CTTTAAACTA TCATTCTAAA TGCATTTGGT

TTTTGCCAGG AGTAAAACAT GTCACAAGAT ATTTGTTGTC ATTTCCCAGG

-1010 CGTGGAAGGA AAGGAATGGA AAGAAAACCA GGGGTGAAGG CTGCTGTTCC

TCTCTAGTCG CTACTTGAAG TCTACATAGC TGGGGGGGGG GGGGGGACTG

TTCACATGGG ACCGGTTTCC TCTTTGTTCC TACACTGGCG CCTCTGGCAA

AAAACTCTCC CTTCTCTTCC CCCCAAGCAT ATCTTGGCTG AAAGGTCAGC

TCTGAAAAGG GGCCTGGCCA AAGTTACTGT AGGGGACCGT GGTCATGGAA

CTGGGTAAAC AAAAGCACTC TAGCAGCCAC TGGAAAAGGA CCGGGGGCTC

TTCTCTGTGC ATTTGCCCTG GAACCCTGAC CACCGCCAGC TCCCTGCATC

TCCTTGCTAT GGGTTTTCTG GACCGACCCA GCCAGGAAGT TCACAACCGA

AATGTCTTCT AGGGCTAATC AGGTAACTTC GGACGATTTA AAGTTGCCAG

ATGGACGAGA AAACAGTAGA GGCGTTGGCA ACCTGGATAA GCGCCTATCT

-510 TCTAATTAAA ACATTCAGAC GGGGCGGGGG ATGCGGTGGC CAAAGCACCA

TAAAACAAAA CTTCCAAGTA CTGACCAACT CACTGCAAGT TTGTGCCCCG

AGTACATCTA GGTTCAGGGG TTCTTGTCTT CATGCTCCCA ACTGCGGGCG

GATTTTTGGT CCCTTGGGAC TTTCAGTGCA GCGGCGAAGA GAGTTCTGCA

CTTGCAGGCT CCTAATTGAGG GCGCAGTGGG CCTCGTGTTT CTGGTGATGC

TTCCCAGGTT GCTGGGGGCA GCAAGTGTCT CAGAGCCCAT TACTGGCTAC

ATTTTACTTC CACCAGAAAC CGAGCTGCGT CCAGATTTGC TCTCAGATGC

FIG. 1-5

GACTTGCCGC CCGGCACAGT TCCGGGGTAG TGGGGGAGTG GGCGTGGGAA

ACCGGGAAAC CCAAACCTGG TATCCAGTGG GGGGCGTGGC CGGACGCAGG

GAGTCCCCAC CCCTCCCGGT AATGACCCCG CCCCCATTCG CTAGTGTGTA

+1 (transcription start)

-10 GCCGGCGCTC TCTTTCTGCC CTGAGTCCTC AGGACCCCAA GAGAGTAAGC

TGTGTTTCCT TAGATCGCGC GGACCGCTAC CCGGCAGGAC TGAAAGCCCA

GACTGTGTCC CGCAGCCGGG ATAACCTGGC TGACCCGATT CCGCGGACAC

CGCTGCAGCC GCGGCTGGAG CCAGGGCGCC GGTGCCCCGC GCTCTCCCCG

GTCTTGCGCT GCGGGGGCGC ATACCGCCTC TGTGACTTCT TTGCGGGCCA

VRE

GGGACGGAGA AGGAGTCTGT GCCTGAGAAC TGGGCTCTGT GCCCAGCGCG

AGGTGCAGGA TGGAGAGCAA GGCGCTGCTA GCTGTCGCTC TGTGGTTCTG

CGTGGAGACC CGAGCCGCCT CTGTGGGTAA GAAGCCCACT CTTTAGTAGT

AAGGCGGAGA AGTAGGGTGC GGGCGGAGAG TGGGAATAGA AGAGGACCTA

ACTCGTAGAG CTCTAGAGAC CCTCCTCCCT TGGGTGTTCT TTCACTTACC

+490 AATGGGGAAA CTGAGGTTCA AAGACTCTTC CGAAATGACT CAGCCAGGAT

TCTACTCTCC CCCGGGCATC GGTTGGAGCG TGTCCTGCGG AGCCGTCACA

GCCCCTGGCG CTAGGTAGGC AGGAGTGGAA AGGCGGCCTG AGCCGGGGCA

GGAGATGCTC CCACTGGCAG GAACAGGCGG TCAAACGCTG GGAAGCCAGC

TCAAGCCAAG CGGCCCGGCT GGCATCAATC ACTCGGTGCT GTTGCCCACC

GCCCTAGTGG GGGGCAGGGA ATCCGCCTCT GGCTCCGCTC CCCTTTAGCT

CCAGCGTGTA AGCGCACGGA CTATGTGAGG GTAGGTCTCT TCATAGAGCA

ACACTTTCCT CCCTCAACTT TCTTTGATGC AGAATGCTAT TTTTGCTGGT

AGGAGGAAGA CGCGGCTTTC TCTTCTGTGA CAGCTTCTCC AGGTGTATTA

AACTAAATAA CTCTCCACTT ACCGACTCCA AAGCGCTGGT CCTGGGGTAA

+990 ACTCTGAAAG TCTCAGAAAC TCTTGAGCTT GGCACCTAGT TATAGGTCAC

TTTTCTTGTT TTAAAATGCC CTCTGCTTCA AGGTTAGGCC CACACTCGCT

FIG. 1-6

CTTGGGCTTT TGTGCAATAA TTTCCCTTCC CTTCCCTTCC CTTCCCTTCC

CTTCCCTTCC CTTCCCTTCC CTTCCCTTCC CTTCCCTTTC CCTCTTCCTT

TTCCTCCTCC TCTTCCTCCT CTATTTCTCT GTCATTTCCT TTTTGAAGCC

ACAGTTTGCA GATTTCCAAT CTCCACCCAT TGGAGAATGG AGAATCAGGA

AAAAAGAAGT CAATTCTGCA GAAACATTCC TTGCGCCCTA AGAGAATCGC

ATGGCTTAAA AGCATTGGCA CTGACATACG GCGCCAAGAT CGCCTGTCTA

GAGCTATTGA GTTTTCCTCA TAATGACTTG GTTCATCAGG CTAGCTCCAC

CACGAGTGCC CTCTTGTTCC TGAGAAGGCC GCACTCTCCC CCTTTCTGGG

AAGAGAAAGA CAGCCTGGAA CATGTGCTTG CCCTGGGTTC CATAGAGAAG

CAAGTTGCTT TAAAGCCCAG AGAATTCCTA GTGTAGCAGC TTAACAGCGT

CCCGTTCTCT GAATAAGATG GAGGTTGCCC TTTTGGAGTG TGTGACTTGC

XhoI (+1600)

TTAATTGGAT TGGGCTATAA TTGGTGCCAT CCAAGTCTCG AGACAGAGCC

GCTGTTGTTT TTCCTTCTGG TCTTTGAGCG GGAAGGATAA CAGTGCACAA

ATTAATTAAT GTTGGTTATC GGATTTGAAC ATAAAAGGGC TTTTATTGTA

TAGTAGCATA TGTACCTCTT GCAGTCAGAA TGAGCTGTCT AAAGAACAGA

ACCCAAACTT GCCGATGAAA ATGAATGAGG TTTAATAAAG GCGATGGATG

AGCATTAGTC ACTGATGTAA ATCTCCAGTT ATTGATAACC TCATTGACTG

GATTTGATTG CAGACATGTA TTGGTATGGG GCATCCTTTA AAGATGAGCA

+1990 TAGCCAACGT GCCTGCACTC TAAGAGAATC TATGGCTGTA TGTTATTACA

GAGACAGTTG AGAAGCTCTT AGTGGCTCTG GCGTGTAGAT CAGCGGTAGA

GCGCTGAGGC TCTGCGCTCG CTTCCTGGCA CTGAAGAATA AAGGCCATTT

ACTGTGGTGG TGCAGTGGGC GCAGTTTGTG ACGAGTTACT ACTACATTTT

CCTCACACAT CTGCCTGACT AATGAGTTCA TCAGATGAGC GTATCCAGTG

ATTGTTTGCA GGTTAATGGT TCTCAGTCAT GTTTAGAATC TACTTATCAA

ACAAATTGTT TTCTCATTTC CTGCTTCTTC TCAAACAAAG TAAGATTCCA

TTATTGAAAG GCTTGTTTAA GAGCATTTTA ACTGCTTGCC TATGTTAGGG

FIG. 1-7

ACAGTGACTT ATTTCATATT GACAAATATT ATGCCGATTA ATTGAATATG

ACTACCCAGT TCTATAGCTG TCTCAGGGCA GACCAAGAGC ATCTGTGATC

CAGTCACTTT AAATGCCATT TAAAATGCAT AATTTGTTGG TCTAGGAATA

AACACACTGT AAAGTTTAGA ATCACGGCCC AAACACAAGT CTTTAACAAT

GCCAACTAGC TTCTGAGATT CATTAATGTC ATTTAATTAC CAATGTTTTA

AAAATATGTC ATTAATTACT AAATCTATAG TTGTAACAGC AACACATGTA

CATCTTATTA AGTTGGGTAT ATTCAGGGTG GCATAGCTGT AGACTATTGC

ACATCTGTGT TGGTGAGCCA GTGGAGAACT GCCTCCTGGC TGTTCTCAGA

AGGCCACAGT GTCACGGCAT TGGCTATTTG CCTTGGCTCT TTGCTAATAC

TTTATTGACA TGGCCTCATC TTCGTTCACG TTCACTTATT TGCCCAACAA

CGTCAATGCC AGCTGAGGCC TTAGGAGTCA TCTGTTCTTA GTCAGTGCGA

ATTAGAAAGC CTGGATGCCT GCCTGCTATT AATTAGTTAT TCTTCTCTTC

+2990 TGAGACAGAG TCTCACTGTG TGGCCCAGGC TAGTCTCAAA CTTGCGGTCC

ATTTGTCTCA CTCATCAGAA TGCTGGGCTT CCAGGTGTGT GCACCACACT

AGGTAGCTCG CGTTTTAAGC TAAGAGCTGG AAGATCCTGA TGTCCTTTAC

CATGGTGGGC ATGTTACAGG TTAGTTGACT GAAAACTAGT TATCTCGCTG

TGTAATGACC TGCAGTGGTA TGTATCTCTC AAGATGCTTT TTTGCATTTC

AATCAGTTAG GTAACAAGTT CTTAAGTCTC CAGCTTGGTA TTGGCATGAG

CTCAGAGCTT TGATTAATGA GTTGGGACCC CCTAGCTATT GCTCATTAGA

CTTACACTAT TTTTAGTTTT GCTCTGAGTT TATGAATATG CATGTATGCA

TGAACTTGGG AGATATTTTT CTTCCCCAAT TCCTTTTCCT CCATTTAAAT

GTGCTGTCTT TAGAAGCCAC TGCCTCAGCT TCTGCAGCTC AGATACCAAA

GGAAGTCTGG TACACAGCAT GATAAAAGAC AATGGGACGG GGTCACAGTG

GCTCCCGTCC CTTTCAGGGG TATGGAGACG AGCTGTAGAG AGATGTCTCC

AGGGAGTTTT CATTAATCAG CAATTTAGTC AGATCTGTGC ATCCTATGCT

TTACAAGAAA TGTCAGTGGG CCTGAGATCA TCAGATGGAG GTTCATCGGG

TTTCAATGTC CCGTATCCTT TTGTAAGACC TTGAAGTTGG CAACGCAGGA

FIG. 1-8

AAACAGGAAC TCCACCCTGG TGCCGTGAAT TGCAGAGCTG TTGTGTTGGT

TTGTGACCAT CTGCCCATTC TTCCTGTTAT GACAGAGCTT GTGAACTTTA

ACTGGGACTG GGGCAAAGTC AATCCCACCT TTATACAATG AATTGCTGAA

GAGGCCTTTT AAAACTTGGA GTGTGCATTG TTTATGGAAG GGCTTTCCTA

BamHI (+3900)

TTGGATCCAA CTCTTTTCTA ATTTGTTTCT AGGTTTGCCT GGCGATTTTC

+3990 TCCATCCCCC CAAGCTCAGC ACACAGAAAG ACATACTGAC AATTTTGGCA

AATACAACCC TTCAGATTAC TTGCAGGTAA GGATTCCTTT TTGAGCCAGC

TTTCCTATGT GAAAGGACTC ATTGTTTTACT GAGGTCACAA CAATTTCCAC

TATTGCAGAA GTATAATAGT ATTGTTACAA TTGTTTATAA ATCATGAGAC

TTCTAAGAAC CTATTTAATA ATGAAACAAT GGAAAAAGTC TTTTCAAACC

TTTGTACTCT TTTGCTGAGC CGTTTTCAAC ATGCACAAAC ATATTACACA

AATATAACAT ACACAGGAAC ACACATGAAT GCATGGGATG ATGTGCCTAA

AACTAGCATG TAATTGATAT TCACAATTAT TGATAAATTA GTAAAGCAAA

GGAATTCCTT ATGAATAGAG CTAAAATTCT ATCCATGTTC AAGTCACCCA

GAATGGCTTC TGGACATTTT TTTTTTTAGC TGTTTTCTAC AAGTGAAATT

CTGCCTGTAT TAGCAATTTA ATATCTAGCC AATAATATTC CTGACCATAT

GTCCTGTTCA GACCATGACC TTCATAATCT GGCTTGATGT TCTGGGCTTC

TTTCCCTCTT GCCAGCAAGA TGTCACGGTG TTGATGCTGG ATAAACTGAG

AAACAGAAGT TTTTCGCAAG AAGAGGACCT TGAATTTTGC TTTTCCCCTG

AGAGACAAGA AAGGAAACTT AGAGGAGGTG TAGCTGGGAG TGTGGTCATT

CATGAAAGAC CTGTTTGCAG GGCAGTGTGT TTTGCTGGGG ACAGTAATGA

GCCTAGATCG TAGTGCCATC CCAAGAGAGT GCTTGGTGGC AAAAAGAGCC

CTAGCAGCTT GTGGCAGTTG CCTCATATTT GAAGAATACT AAGAGGTCCC

CCGAATAACT CAGGGCTAGT GTTGATCATT GCATGTGGAG AGAATCCAAG

CCTCCTATCT AGGGTCTACA AAAGTAACCA ATGCCCAGTC TTTGGGGGAA

FIG. 1-9

+4990 AGCAAAACCA GAAAGCGATG ATAGCAGGAC CTGTTTATTT TCATTAAGTC

ATGGCATTTC CAGAGACTTT GCTCCCCCTA TTCTCAGACA CAAAGCCCAC

TTAAGATCTC CCTCTGGAGA CTGCTGGGAA CATTTCTTAA GTTCTGAAAA

AACCCTGGAG TGATTGGGCA CAGACGATCC TGTCACTTCA TGTGAGTGCT

AAGCTCTTTG GGTGATGACT CAGTGGGTCA CATTGTTTTA TTCATATTGA

CTACCTTCCG TTTGCTTTGC GGAGAATGGA AGCTATAGAA GTCTGTTTGG

TGTGGCCCTC ACAAGGCACT GTGAGCTTCT TCTCTCTGTG TGCTAACTTC

TTACTCTCCC TTGCTTATAC CCACATAGGG ACTCTGGCTT TGTTGCTGTT

CTTCAATGCT TCAGATGTGC CCTGGGTCCT GTCTGTCCTT CACACTTACT

GATGCTGCCT GGAATGCTAT TCCTCCCAAT GTGCATAGGG CCAGCTCGGT

CCAAATCCTC TCTTTTCTTT GCCTCTTTTA TATTTTCCTT CACAGTATCA

AATCACCACA GTTTATGCAA CAAACTGAAA CTTTAAAATT GTCTGTCTCC

TTATATTAGT GATAGGTTCC AGAAAGGCAC TGATTTTTTT TCTTCCCTGG

TGTACACTGG GCAACTACTC TACCACTGAG CGTGATATCC TTGGTCCCTT

AAAAGTTATC CTCTGTCCTT AATAATGCTT AGCAATCATA TTTGCTTAAA

ATATTTATTG AATGACTGCA GGAATGAATG AATGAATGAG CTAACAGAAA

ACTCATGACC ATGTGGGTGA TTTCCGAAAC AGAGTGTGAG ATCTTTGGTG

GCATGTCCTT GTAGACTGTC TGCCACCAGT ATCTATCATC TTGAAGGTGA

CTATTGAGTA GTTTATATGC ATGTGAAAAA CCAAACCTTC TATTCTCTTA

CTCATAGCCT CTCTTAATCA TAGCCCTGTG GCATGGAGTG TACCATTGAT

+5990 ATCTTCCTGG AATACTTTTT CAGGGGACAG CGGGACCTGG ACTGGCTTTG

GCCCAATGCT CAGCGTGATT CTGAGGAAAG GGTATTGGTG ACTGAATGCG

GCGGTGGTGA CAGTATCTTC TGCAAAACAC TCACCATTCC CAGGGTGGTT

GGAAATGATA CTGGAGCCTA CAAGTGCTCG TACCGGGACG TCGAC (SEQ ID NO: 1)

FIG. 1-10

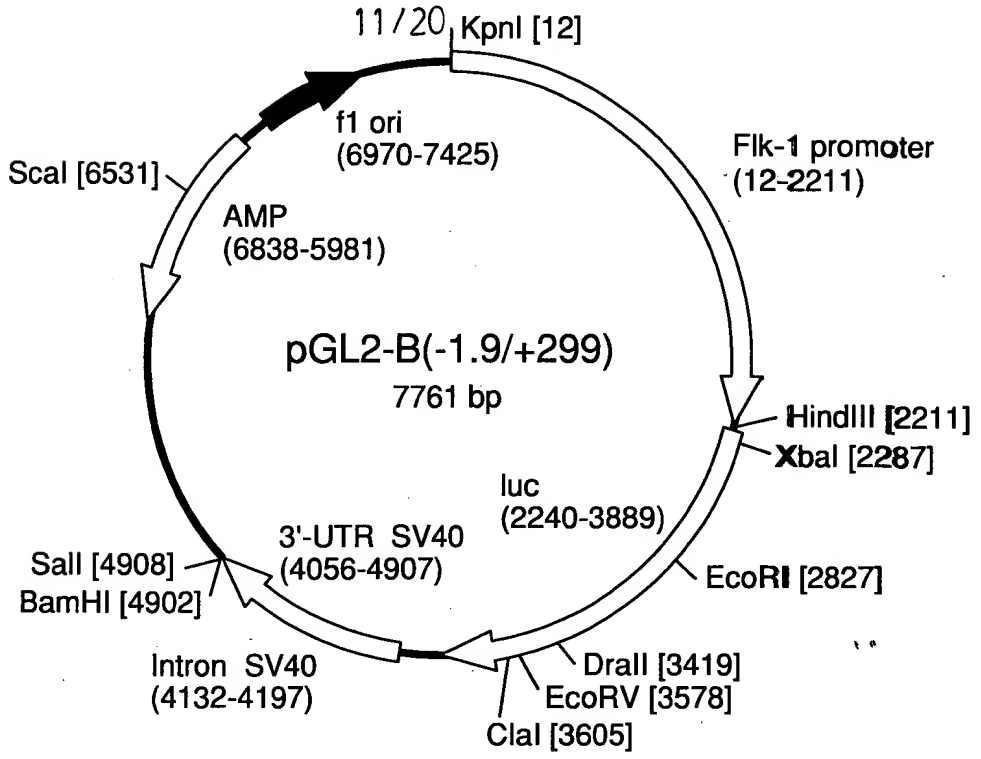

KpnI [12]
f1 ori
(6970-7425)
Flk-1 promoter
(12-2211)
ScaI [6531]
AMP
(6838-5981)
pGL2-B(-1.9/+299)
7761 bp
HindIII [2211]
XbaI [2287]
luc
(2240-3889)
3'-UTR SV40
(4056-4907)
SalI [4908]
BamHI [4902]
EcoRI [2827]
Intron SV40
(4132-4197)
DraII [3419]
EcoRV [3578]
ClaI [3605]

FIG. 2

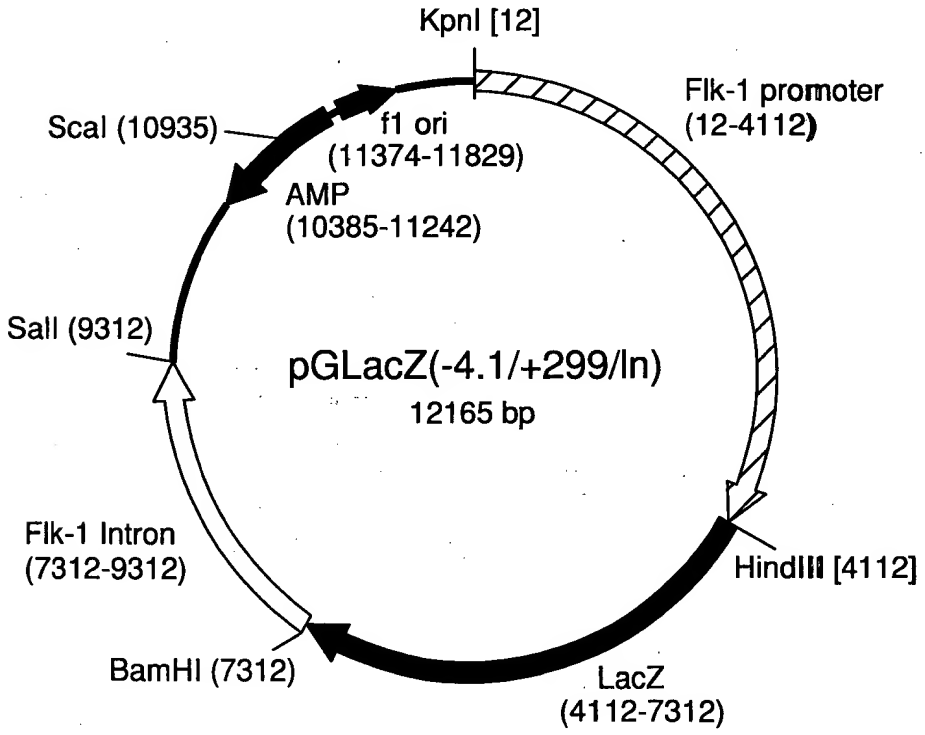

KpnI [12]
Flk-1 promoter
(12-4112)
ScaI (10935)
f1 ori
(11374-11829)
AMP
(10385-11242)
SalI (9312)
pGLacZ(-4.1/+299/In)
12165 bp
Flk-1 Intron
(7312-9312)
HindIII [4112]
BamHI (7312)
LacZ
(4112-7312)

FIG. 3

FIG. 4A

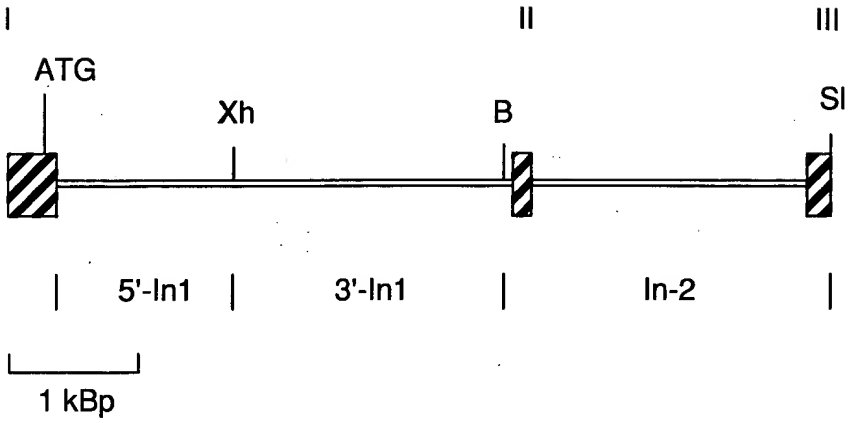


FIG. 4B

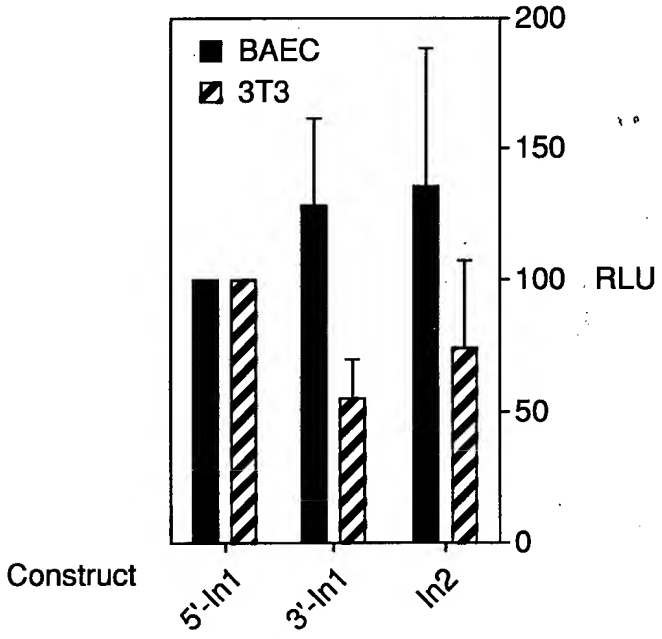
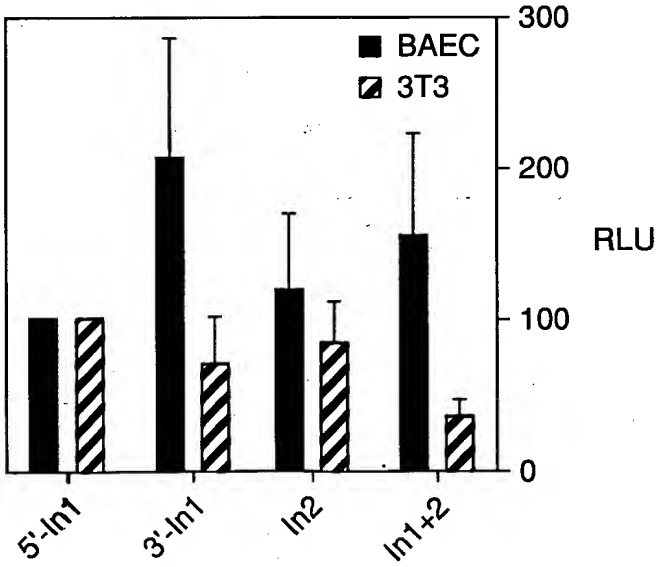


FIG. 4C



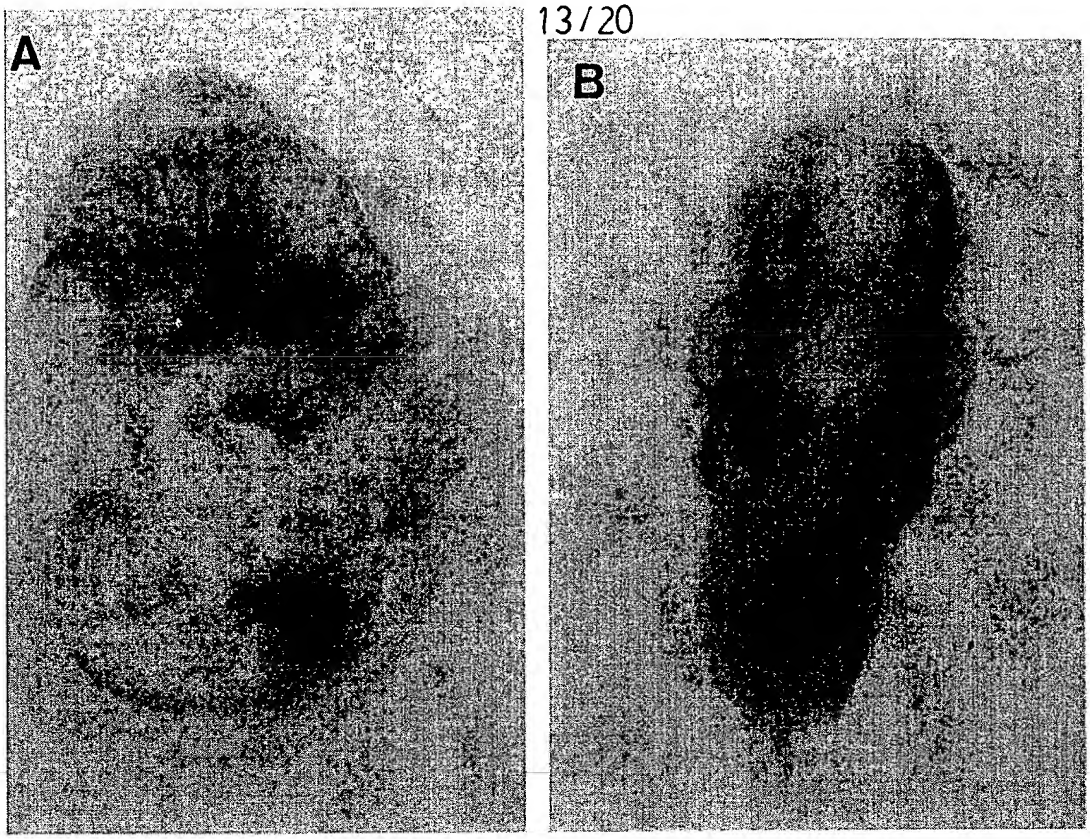


FIG. 5

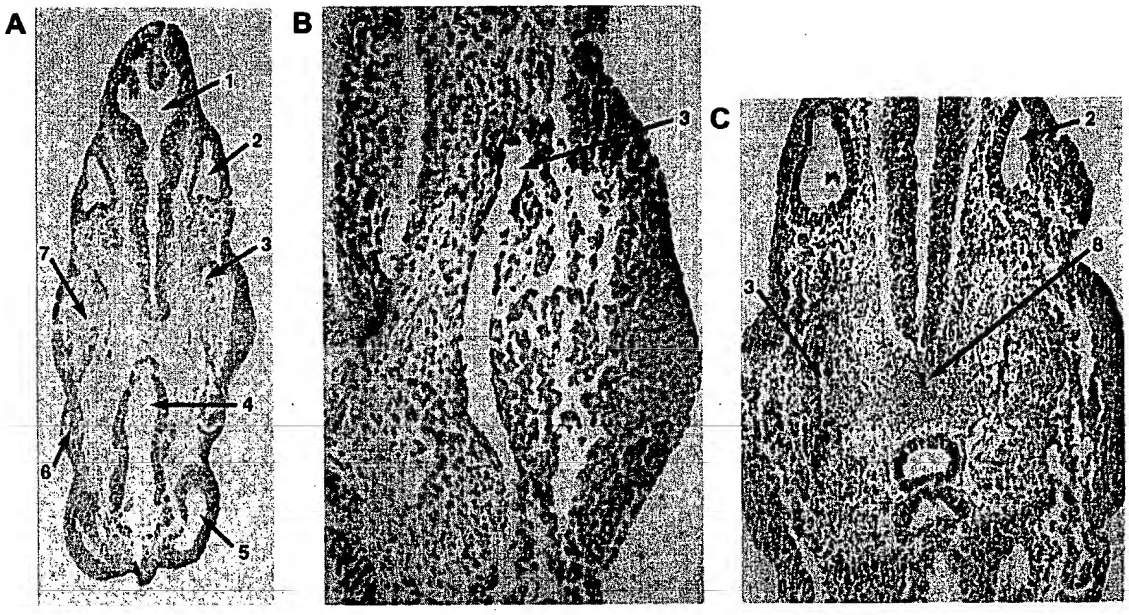


FIG. 6

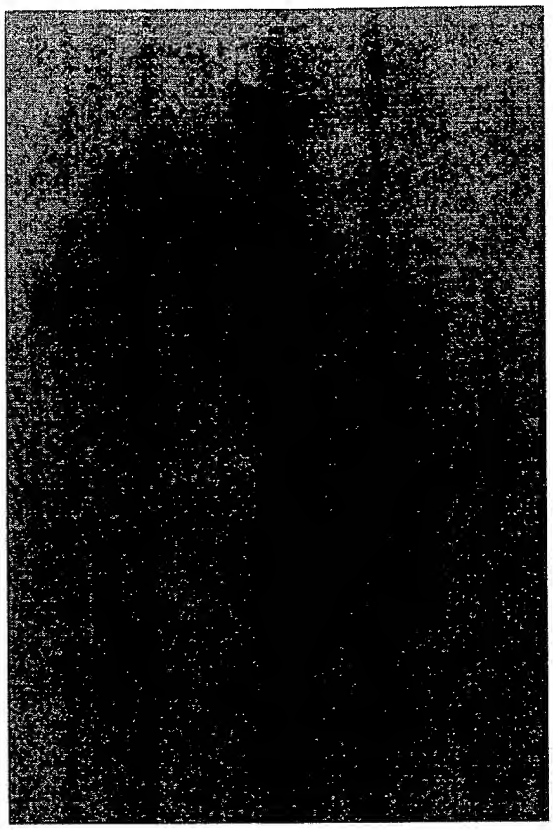


FIG. 7

FIG. 8

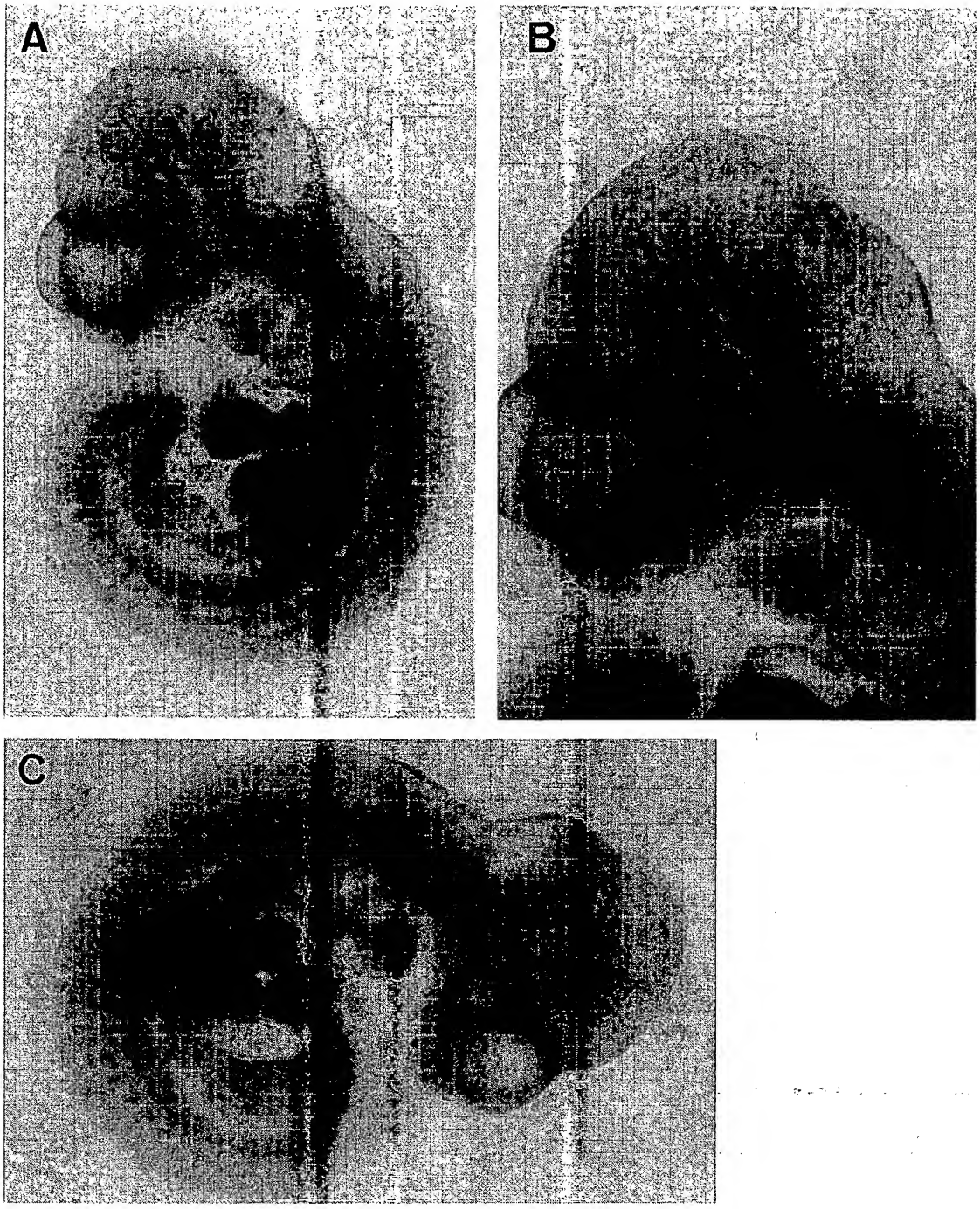


FIG. 9

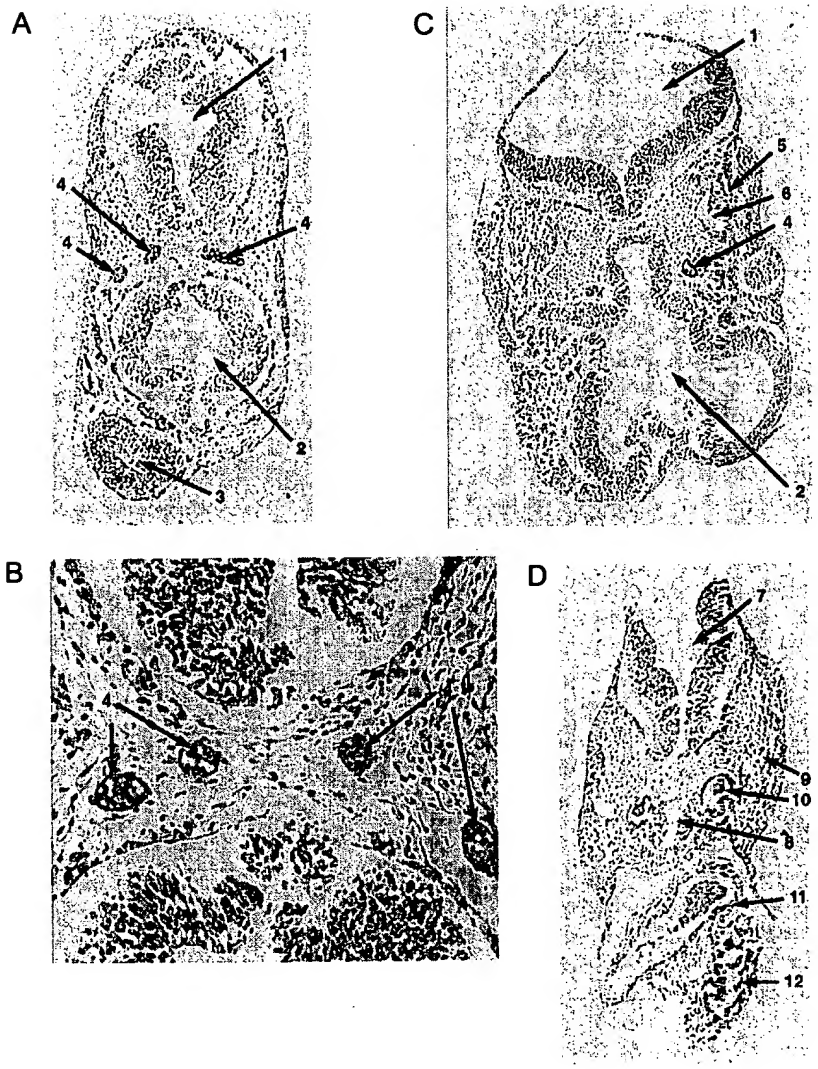


FIG. 10

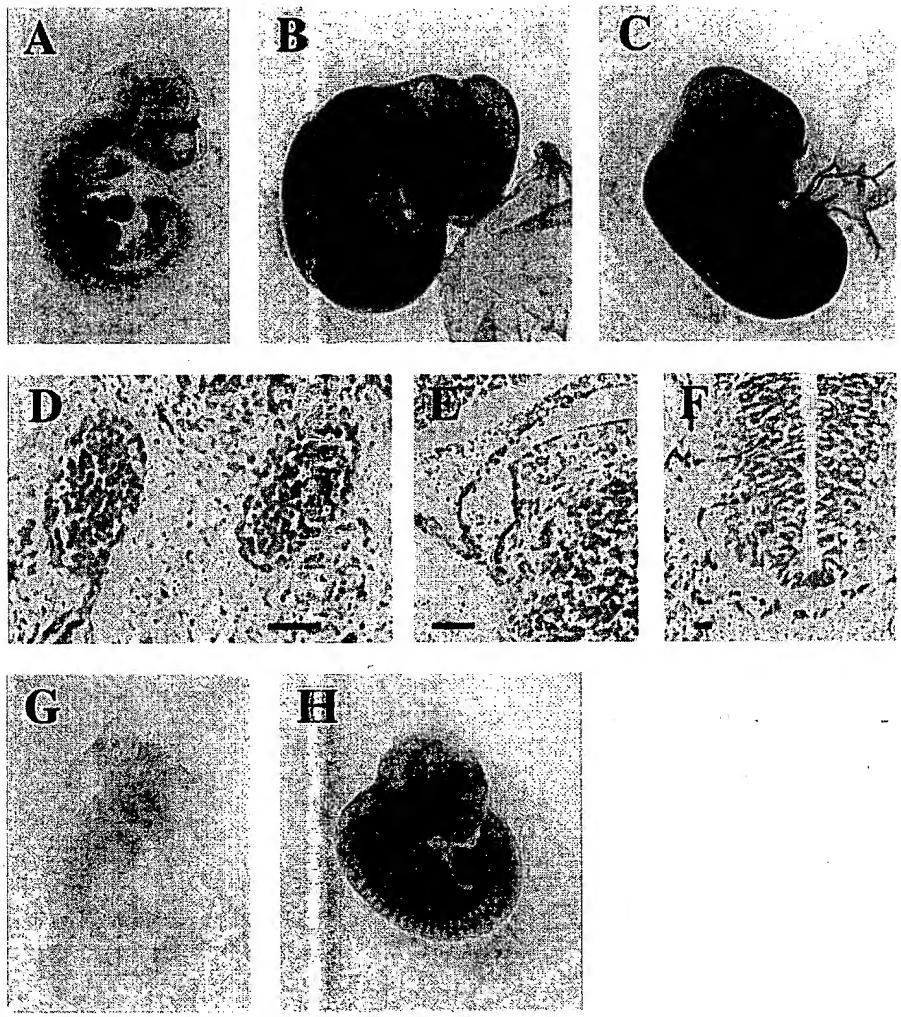


FIG. 11

GATA PEA3
AAATGTGCTGTCTTTAGAAGCCACTGCCTCAGCTTCTGCAGCTCAGATACCAAAGGAAGTCTGGT 65
GATA AP1
ACACAGCATGATAAAAGACAATGGGACGGGGTCACAGTGGCTCCCGTCCCTTTCAGGGGTATGGA 130
NFkB AP1
GACGAGCTGTAGAGAGATGTCTCCAGGGAGTTTTCATTAATCAGCAATTTAGTCAGATCTGTGCA 195
STAT SCL/TAL-1
TCCTATGCTTTACAAGAAATGTCAGTGGGCCTGAGATCATCAGATGGAGGTTCATCGGGTTTCAA 260
Ets-1 GATA Ets-1
TGTCCCGTATCCTTTTGTAAGACCTTGAAGTTGGCAACGCAGGAAAACAGGAACTCCACCCTGGT 325
SCL/TAL-1 Ets-1
GCCGTGAATTGCAGAGCTGTTGTGTTGGTTTGTGACCATCTGCCCATTCTTCCTGTTATGACAGA 390
GCTTGTGAACTTTAACTGGGACTGGGGCAAAGTCAATCCCACCTTTATACAATGAATTGCTGAAG 455
AGGCCTTTTAAAACTTGGAGTGTGCATTGTTTATGGAAGGGCTTTCCTATTGGATC 511

FIG. 12

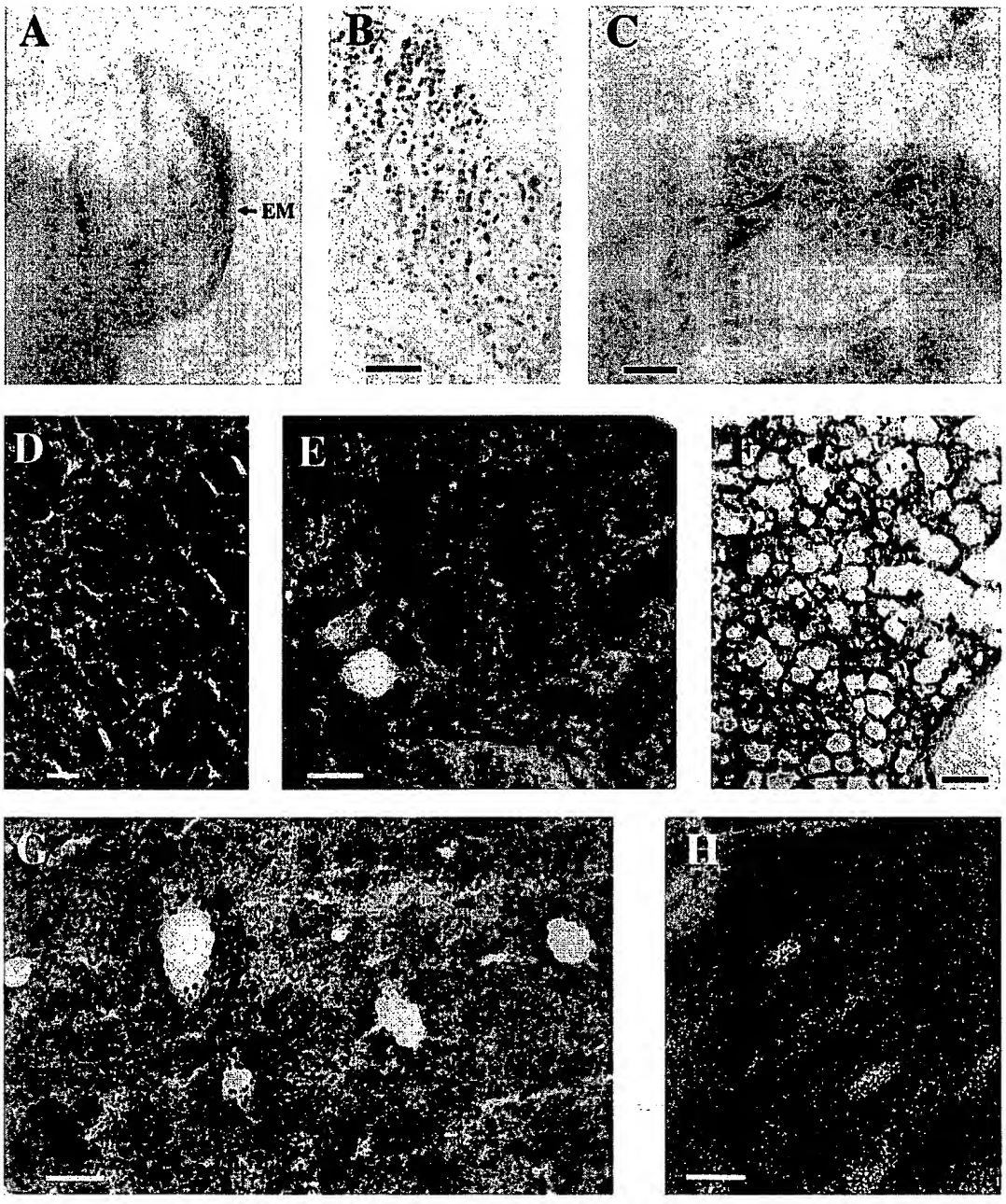


FIG. 13

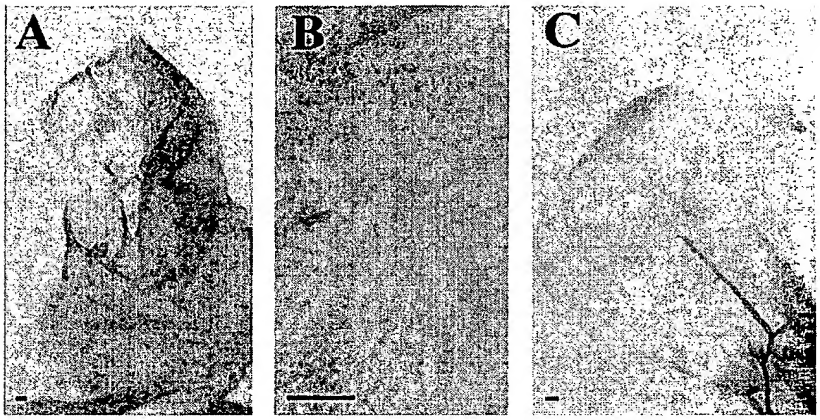


FIG. 14

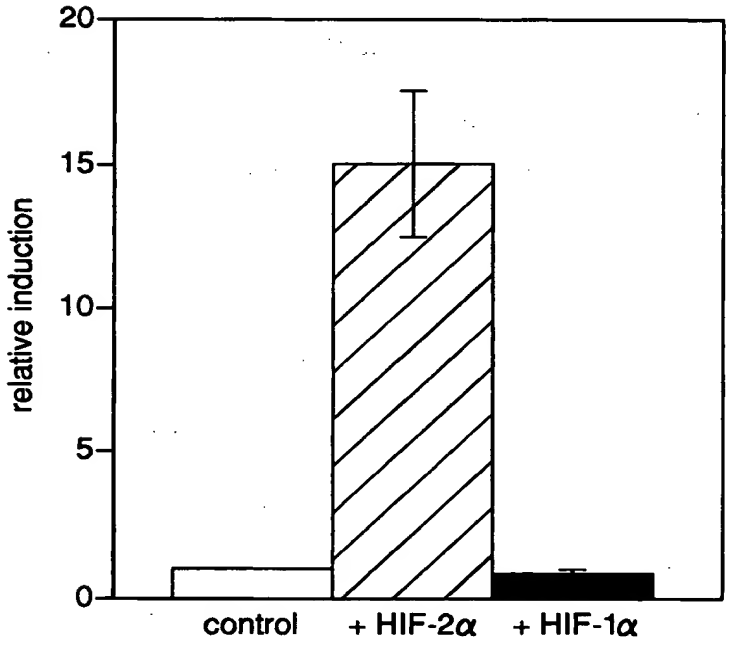


FIG. 15

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